

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the subject application:

Listing of Claims:

1. (Currently Amended) A method comprising:

~~monitoring~~ receiving data from a first sensor, the first sensor
communicatively coupled to a high thermal dissipating object in a
system to ~~monitor~~ sense a temperature of the object;

~~monitoring~~ receiving data from a second sensor, the second sensor
communicatively coupled to the system to ~~monitor~~ sense [[a]] an air
temperature of the system;

entering a first stage of cooling by powering on ~~causing at least one fan a~~
plurality of fans in the system to operate, said entering the first
stage being in response to receiving data indicative of a first set of
conditions from at least one of ~~conditions as detected by~~ the first
and second sensors; and

entering an intermediary stage of cooling by reducing the speed of at least
one of the ~~at least one~~ plurality of fans in response to ~~conditions as~~
~~detected by~~ receiving data indicative of a second set of conditions
from at least one of the first and second sensors.

2. (Currently Amended) The method of claim 1, wherein one of the at least one fans directs airflow at a first speed towards a main section of a heat sink that is in contact with ~~[[a]]~~ the high thermal dissipating object.
3. (Currently Amended) The method of claim 1, wherein the first set of conditions ~~detected by the first and second sensors that cause said entering of the first stage comprise~~ comprises at least one of:

the high thermal dissipating object ~~element~~ dissipating full thermal design power; and

elevated environmental temperatures in the system.
4. (Currently Amended) The method of claim 3, wherein the second set of conditions ~~detected by the first and second sensors that cause said entering of the intermediary stage~~ comprises at least one of:

reduced thermal design power; and

decreased environmental temperatures.
5. (Currently Amended) The method of claim 1, additionally comprising entering a final stage of cooling by powering off the ~~causing each of the at least one plurality of fans to shut off~~.
6. (Currently Amended) The method of claim 1, wherein said powering on a plurality of fans in the system ~~causing at least one fan to operate~~

comprises powering on ~~causing~~ at least a first and second one of the plurality of fans ~~at least one fan to operate~~ in succession.

7. (Currently Amended) The method of claim 1, wherein said powering on a plurality of fans in the system ~~causing at least one fan to operate~~ comprises powering on ~~causing~~ at least a first and second one of the plurality of fans ~~at least one fan to operate~~ simultaneously.

8. (Currently Amended) A method comprising:

detecting a first set of conditions by monitoring a first sensor

communicatively coupled to a high thermal dissipating object in a system to sense a temperature of the high thermal dissipating object;

detecting a second set of conditions by monitoring a second sensor

communicatively coupled to the system to sense an air temperature of the system;

in response to detecting the first set of conditions, causing an impinging fan to direct airflow at a first speed onto a main section of a heat sink in contact with ~~[[a]]~~ the high thermal dissipating object, and causing a system fan to direct airflow onto an extended section of the heat sink; and

in response to detecting the second set of conditions, causing the
impinging fan to reduce its speed.

9. (Original) The method of claim 8, wherein the first set of conditions comprises at least one of:

the high thermal dissipating object dissipating full thermal design power;

and

elevated temperatures in the system.
10. (Original) The method of claim 8, wherein the impinging fan completely shuts off in response to detecting the second set of conditions.
11. (Original) The method of claim 8, additionally comprising entering a final stage by causing the impinging and system fans to shut off.
12. (Original) The method of claim 8, wherein the high thermal dissipating object comprises a CPU (central processing unit) in a computer system.
13. (Currently Amended) A system comprising:

an object having high thermal dissipating properties (high thermal
dissipating object);

a first sensor communicatively coupled to the high thermal dissipating
object to ~~determine~~ sense a temperature of the high thermal
dissipating object;

at least one second sensor communicatively coupled to the system to
sense ~~determine~~ [[a]] an air temperature of the system;

a heat sink in adjacent contact with the high thermal dissipating object, the
heat sink having a main section located nearest the high thermal
dissipating object, and an extended section farthest from the high
thermal dissipating object, ~~the sections being connected by at least
one heat pipe;~~

[[a]] the first fan to direct airflow towards the main section of the heat sink;

[[a]] the second fan to direct airflow towards the extended section of the
heat sink; and

a memory to store a computer program to receive temperature data from
the first sensor and the at least one second sensor, and to vary the
speeds of the first fan and the second fan based on the received
temperature data. ~~that detects conditions under which a first stage
is entered, and conditions under which an intermediary stage is
entered, and which causes the first and second fans to operate
under speeds in accordance with the first and intermediary stages.~~

14. (Original) The system of claim 13, wherein one of the at least one second
sensors is located in close proximity to the first fan, and a second one of
the at least one second sensors is located in close proximity to the second
fan

15. (Original) The system of claim 13, wherein the first fan is co-planar with the second fan.
16. (Original) The system of claim 13, wherein the heat sink additionally comprises fins on the main section and the extended section.
17. (Original) The system of claim 16, wherein the fins on the main section of the heat sink are denser than the fins on the extended section of the heat sink.
18. (Canceled)
19. (Original) The system of claim 16, wherein the fins on the main section of the heat sink are spaced about equally, and about the same size as the fins on the extended section of the heat sink.
20. (Currently Amended) A system comprising:

an object having high thermal dissipating properties (high thermal dissipating object);

a first sensor communicatively coupled to the high thermal dissipating object to sense ~~determine~~ a temperature of the high thermal dissipating object;

at least one second sensor communicatively coupled to the system to sense ~~determine~~ [[a]] an air temperature of the system;

a heat sink in adjacent contact with the high thermal dissipating object, the heat sink having a main section located nearest the high thermal dissipating object, and an extended section farthest from the high thermal dissipating object, the sections having fins and being connected by a high heat conductivity material, and the fins on the extended section being twice the spacing as the fins on the main section;

a first fan;

a second fan; and

a memory to store a computer program to:

detect a first set of conditions and a second set of conditions; and

cause the first fan and the second fan to operate in accordance with the first and second set of conditions.

21. (Canceled)

22. (Canceled)

23. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause result in the processor to perform the following:

~~monitor~~ receiving data from a first sensor, the first sensor communicatively coupled to a high thermal dissipating object in a system to ~~monitor~~ sense a temperature of the object;

~~monitor~~ receiving data from a second sensor, the second sensor communicatively coupled to the system to ~~monitor~~ sense [[a]] an air temperature of the system;

~~enter~~ entering a first stage of cooling by powering on ~~causing at least one~~ fan a plurality of fans in the system ~~to operate~~, said entering the first stage being in response to receiving data indicative of a first set of conditions from at least one of ~~conditions as detected by the~~ first and second sensors; and

~~enter~~ entering an intermediary stage of cooling by reducing the speed of at least one of the ~~at least one~~ plurality of fans in response to ~~conditions as detected by~~ receiving data indicative a second set of conditions from at least one of the first and second sensors.

24. (Currently Amended) The machine-readable medium of claim 23, wherein ~~the processor causes the system to enter a~~ the instructions that result in entering the first stage of cooling comprise instructions that result in receiving data indicative of ~~by detecting~~ at least one of the following conditions:

a computer system CPU (central processing unit) dissipating full thermal

design power; and

elevated temperatures in a chassis to house the system fan, impinging
fan, CPU, and heat sink.

25. (Currently Amended) The machine-readable medium of claim 24,
additionally comprising instructions that result in entering the processor to
cause the system to enter a final stage of cooling by:

receiving data indicative of a detecting one or more third set of conditions;
and

powering off the plurality of fans. ~~by causing the fans to shut off.~~

26. (Original) The machine-readable medium of claim 25, wherein the
elevated temperatures comprise elevated temperatures inside of a
computer system chassis.

27. – 30. (Canceled)

31. (New) The system of claim 17, wherein the fins on the main section of the
heat sink are shorter than the fins on the extended section of the heat sink.